

## CLAIMS

1. A printing apparatus for forming a dot in a desired position of a printing sheet by ejecting an ink droplet from a nozzle, comprising:

a static electricity eliminating mechanism, which eliminates static

5 electricity generated on the printing sheet by a conductive member that is arranged in a position to which the ink droplet is ejected from the nozzle or an upstream side of such position on a path through which the printing sheet passes.

2. The printing apparatus as set forth in claim 1, further comprising:

10 an earthing unit, which earths the conductive member.

3. The printing apparatus as set forth in claim 1, wherein the conductive portion is formed in a sheet feed roller.

4. The printing apparatus as set forth in claim 1, wherein the conductive portion is formed in an idle roller that pushes the printing sheet against the

15 sheet feed roller with pressure.

5. The printing apparatus as set forth in claim 3 or 4, further comprising:

an earthing unit, which earths the sheet feed roller constituting the conductive portion or the idle roller constituting the conductive portion.

6. The printing apparatus as set forth in claim 4 or 5, wherein the sheet  
20 feed roller or the idle roller is formed by coating a predetermined insulating coating on a surface of a conductive rod-shaped member;

wherein the conductive portion is formed by stripping off a part of the coating on the sheet feed roller or the idle roller, and

wherein the rod-shaped member of the sheet feed roller or the idle  
25 roller is connected to the printing apparatus.

7. The printing apparatus as set forth in claim 6, wherein a strip-off portion of the coating on the sheet feed roller is formed at least at two locations; and

wherein the idle roller is formed so as to push the printing sheet by the strip-off portion.

8. The printing apparatus as set forth in claim 1, wherein the conductive member is a conductive member that is arranged in the position to which the ink droplet is ejected from the nozzle or the upstream side of such position on the path through which the printing sheet passes and is connected to a chassis that is different from a paper feed member.

9. The printing apparatus as set forth in claim 8, wherein the conductive member is a conductive member having a sharp tip; and

wherein the sharp tip is arranged to be directed to the printing sheet.

10. The printing apparatus as set forth in claim 1, wherein a plurality of projected portions are formed on a contact surface with which the printing sheet comes into contact on the path through which the printing sheet passes to reduce a contact area.

11. The printing apparatus as set forth in claim 1, wherein material of a member constituting the path through which the printing sheet passes is configured by selecting material that is near material of the printing sheet in a charging sequence table.

12. The printing apparatus as set forth in claim 1, wherein a surface of a member constituting the path through which the printing sheet passes is coated with material or a surfactant that is near material of the printing sheet in a charging sequence table.

13. A printing apparatus for forming a dot in a desired position of a printing sheet by ejecting an ink droplet from a nozzle, comprising:

a static electricity eliminating mechanism, which eliminates static electricity generated on the printing sheet by a conductive member that is

5 arranged in a position to which the ink droplet is ejected from the nozzle or an upstream side of such position on a path through which the printing sheet passes; and

a printing unit, which ejects the ink droplet from the nozzle to an area that is out of a size of the printing sheet.

10 14. The printing apparatus as set forth in any one of claims 1 to 13, wherein an ink absorbing member for absorbing the ink droplet ejected to an outside of the printing sheet is arranged on a platen.

15. The printing method for forming a dot in a desired position of a printing sheet by ejecting an ink droplet from a nozzle, comprising the steps of:

15 transporting the printing sheet to a nozzle position;

eliminating static electricity generated on the printing sheet before the printing sheet reaches to the nozzle position; and

printing by ejecting the ink droplet from the nozzle after the static electricity is eliminated.

20 16. The printing method as set forth in claim 15, wherein the printing step is a printing mode in which the ink droplet is ejected from the nozzle to an area that is out of a size of the printing sheet.

17. The printing method as set forth in claim 15, wherein the static electricity eliminating step is performed by a static electricity eliminating portion

25 that is formed in a printing sheet feed roller portion.

18. The printing method as set forth in claim 15, wherein the static electricity eliminating step is performed by a static electricity eliminating portion that is formed of a conductive member on which a plurality of projected portions arranged immediately before a nozzle position on a path through which the

5 printing sheet passes are formed.